AMENDMENTS TO THE CLAIMS

1-12. (Canceled)

13. (Currently Amended) A high-frequency signal level determining ~~detection~~ apparatus comprising:

an AGC circuit for executing an automatic gain control on an intermediate frequency signal obtained by converting a frequency of a received high-frequency signal, using an RFAGC value for controlling a gain of the received high-frequency signal and an IFAGC value for controlling a gain of the intermediate frequency signal based on the intermediate frequency signal so that an output level of the intermediate frequency signal is substantially constant; and

determining ~~detecting~~ means for previously measuring first relational data indicating an RFAGC value relative to an inputted signal level of a generated ~~the received~~ high-frequency signal and second relational data indicating an IFAGC value relative to the inputted signal level of the generated ~~received~~ high-frequency signal, for measuring the RFAGC value and the IFAGC value when a high-frequency signal to be measured is received, and for determining ~~detecting~~ the inputted signal level of the received high-frequency signal using the measured first and second relational data based on the measured RFAGC value and IFAGC value,

wherein the received high-frequency signal has a plurality of frequencies, and

wherein said determining ~~detecting~~ means previously measures a first relational data indicating the RFAGC value relative to the inputted signal level and a second relational data indicating the IFAGC value relative to the inputted signal level, using a generated high-frequency

signal having a substantial central frequency among the plurality of frequencies.

14. (Currently Amended) The high-frequency signal level determining ~~detection~~ apparatus as claimed in claim 13,

wherein said determining ~~detecting~~ means determines ~~detects~~ the inputted signal level of the received high-frequency signal using only the second relational data based on the measured IFAGC value when the gain of the received high-frequency signal is a maximum value thereof.

15. (Currently Amended) The high-frequency signal level determining ~~detection~~ apparatus as claimed in claim 13,

wherein said determining ~~detecting~~ means determines ~~detects~~ the inputted signal level of the received high-frequency signal using only the first relational data based on the measured RFAGC value when the gain of the received high-frequency signal is not a maximum value thereof.

16. (Currently Amended) The high-frequency signal level determining ~~detection~~ apparatus as claimed in claim 13,

wherein said determining ~~detecting~~ means determines ~~detects~~ a first inputted signal level of the received high-frequency signal using the measured first relational data based on the measured RFAGC value, determines ~~detects~~ a second inputted signal level of the received high-frequency signal using the measured second relational data based on the measured IFAGC value,

and determines ~~detects~~ an average value of the determined ~~detected~~ first and second inputted signal levels as the inputted signal level of the received high-frequency signal.

17. (Currently Amended) The high-frequency signal level determining ~~detection~~ apparatus as claimed in claim 13,

wherein the received high-frequency signal has a plurality of frequencies,

wherein said determining ~~detecting~~ means previously measures the following parts using two generated high-frequency signals having a maximum frequency and a minimum frequency among the plurality of frequencies, respectively:

(a) a first part of the first relational data indicating the RFAGC value relative to the inputted signal level of the generated high-frequency signal having the maximum frequency;

(b) a first part of the second relational data indicating the IFAGC value relative to the inputted signal level of the generated high-frequency signal having the maximum frequency;

(c) a second part of the first relational data indicating the RFAGC value relative to the inputted signal level of the generated high-frequency signal having the minimum frequency; and

(d) a second part of the second relational data indicating the IFAGC value relative to the inputted signal level of the generated high-frequency signal having the minimum frequency,

wherein said determining ~~detecting~~ means determines ~~detects~~ a first inputted signal level of the received high-frequency signal using the measured first part of the first relational data based on the measured RFAGC value, determines ~~detects~~ a second inputted signal level of the received high-frequency signal using the measured first part of the second relational data based

on the measured IFAGC value, and determines ~~detects~~ an average value of the determined ~~detected~~ first and second inputted signal levels as the inputted signal level of the received high-frequency signal having the maximum frequency,

wherein said determining ~~detecting~~ means determines ~~detects~~ a third inputted signal level of the received high-frequency signal using the measured second part of the first relational data based on the measured RFAGC value, determines ~~detects~~ a fourth inputted signal level of the received high-frequency signal using the measured second part of the second relational data based on the measured IFAGC value, and determines ~~detects~~ an average value of the determined ~~detected~~ third inputted signal level and the determined ~~detected~~ fourth inputted signal level as the inputted signal level of the received high-frequency signal having the minimum frequency, and

wherein said determining ~~detecting~~ means calculates the inputted signal level of the received high-frequency signal to be measured using a linear approximation method for linearly approximating the inputted signal level relative to a reception frequency of the received high-frequency signal to be measured based on the determined ~~detected~~ inputted signal level of the received high-frequency signal having the maximum frequency and on the determined ~~detected~~ inputted signal level of the received high-frequency signal having the minimum frequency.

18. (Currently Amended) The high-frequency signal level determining ~~detection~~ apparatus as claimed in claim 13,

wherein the received high-frequency signal has a plurality of frequencies,

wherein a frequency range including the plurality of frequencies is divided into a plurality

of frequency ranges, and

wherein said determining ~~detecting~~ means previously measures the first and second relational data in each of the divided frequency ranges, and determines ~~detects~~ the inputted signal level of the received high-frequency signal using the measured first and second relational data corresponding to the frequency range to which the frequency of the received high-frequency signal to be measured belongs.

19. (Currently Amended) The high-frequency signal level determining ~~detection~~ apparatus as claimed in claim 13,

wherein said determining ~~detecting~~ means previously measures third relational data, that is a determined ~~detected~~ error in the IFAGC value of the second relational data indicating the IFAGC value relative to the inputted signal level of the received high-frequency signal, the determined ~~detected~~ error being caused, between a case with an interference signal of a further received high-frequency signal in the vicinity of the frequency of the received high-frequency signal to be measured, and a case with no interference signal thereof, and

wherein said determining ~~detecting~~ means determines ~~detects~~ the determined ~~detected~~ error using the third relational data based on the IFAGC value measured for the received high-frequency signal to be measured, and corrects the determined ~~detected~~ inputted signal level using the determined ~~detected~~ error.

20. (Currently Amended) The high-frequency signal level determining ~~detection~~

apparatus as claimed in claim 13,

wherein said determining ~~detecting~~ means previously measures the following parts:

(a) a first part of third relational data, that is a first determined ~~detected~~ error in the IFAGC value of the second relational data indicating the IFAGC value relative to the inputted signal level of the received high-frequency signal, the first determined ~~detected~~ error being caused, between a first case with interference signals of further received high-frequency signals located on both sides of the frequency of the received high-frequency signal to be measured, and a case with no interference signal thereof; and

(b) a second part of the third relational data, that is a second determined ~~detected~~ error in the IFAGC value of the second relational data indicating the IFAGC value relative to the inputted signal level of the received high-frequency signal, the second determined ~~detected~~ error being caused, between a second case with an interference signal of further received high-frequency signal located on one side of the frequency of the received high-frequency signal to be measured, and a case with no interference signal thereof,

wherein said determining ~~detecting~~ means determines ~~detects~~ one of the first and second determined ~~detected~~ errors based on the IFAGC value measured for the received high-frequency signal to be measured using one of the first and second parts of the third relational data which respectively correspond to states in which the received high-frequency signal to be measured is in the first and second cases, and corrects the determined ~~detected~~ inputted signal level using the determined ~~detected~~ error.

21. (Currently Amended) The high-frequency signal level determining ~~detection~~ apparatus as claimed in claim 13,

wherein said determining ~~detecting~~ means represents the first relational data and the second relational data by predetermined approximate functions, respectively, and determines ~~detects~~ the inputted signal level of the received high-frequency signal using the approximate function of the first relational data and the approximate function of the second relational data.

22. (Currently Amended) The high-frequency signal level determining ~~detection~~ apparatus as claimed in claim 13, further comprising display means for displaying the inputted signal level determined ~~detected~~ by said determining ~~detecting~~ means.

23. (Currently Amended) A high-frequency signal receiver apparatus, comprising:

a receiver for receiving a high-frequency signal, for converting the received high-frequency signal into an intermediate frequency signal, and for outputting the intermediate frequency signal; and

a high-frequency signal level determining ~~detection~~ apparatus comprising: [[,]]

an AGC circuit for executing an automatic gain control on the intermediate frequency signal, using an RFAGC value for controlling a gain of the received high-frequency signal and an IFAGC value for controlling a gain of the intermediate frequency signal based on the intermediate frequency signal so that an output level of the intermediate frequency signal is substantially constant; and

determining ~~detecting~~ means for previously measuring first relational data indicating an RFAGC value relative to an inputted signal level of the received high-frequency signal and second relational data indicating an IFAGC value relative to the inputted signal level of the received high-frequency signal, for measuring the RFAGC value and the IFAGC value when a high-frequency signal to be measured is received, and for determining ~~detecting~~ the inputted signal level of the received high-frequency signal using the measured first and second relational data based on the measured RFAGC value and IFAGC value,

wherein the received high-frequency signal has a plurality of frequencies, and

wherein said determining ~~detecting~~ means previously measures a first relational data indicating the RFAGC value relative to the inputted signal level and a second relational data indicating the IFAGC value relative to the inputted signal level, using a generated high-frequency signal having a substantial central frequency among the plurality of frequencies.

24. (Currently Amended) The high-frequency signal receiver apparatus as claimed in claim 23,

wherein said determining ~~detecting~~ means determines ~~detects~~ the inputted signal level of the received high-frequency signal using only the second relational data based on the measured IFAGC value when the gain of the received high-frequency signal is a maximum value thereof.

25. (Currently Amended) The high-frequency signal receiver apparatus as claimed in claim 23,

wherein said determining ~~detecting~~ means determines ~~detects~~ the inputted signal level of the received high-frequency signal using only the first relational data based on the measured RFAGC value when the gain of the received high-frequency signal is not a maximum value thereof.

26. (Currently Amended) The high-frequency signal receiver apparatus as claimed in claim 23,

wherein said determining ~~detecting~~ means determines ~~detects~~ a first inputted signal level of the received high-frequency signal using the measured first relational data based on the measured RFAGC value, determines ~~detects~~ a second inputted signal level of the received high-frequency signal using the measured second relational data based on the measured IFAGC value, and determines ~~detects~~ an average value of the determined ~~detected~~ first and second inputted signal levels as the inputted signal level of the received high-frequency signal.

27. (Currently Amended) The high-frequency signal receiver apparatus as claimed in claim 23,

wherein the received high-frequency signal has a plurality of frequencies,

wherein said determining ~~detecting~~ means previously measures the following parts using two generated high-frequency signals having a maximum frequency and a minimum frequency among the plurality of frequencies, respectively:

(a) a first part of the first relational data indicating the RFAGC value relative to the

inputted signal level of the generated high-frequency signal having the maximum frequency;

(b) a first part of the second relational data indicating the IFAGC value relative to the inputted signal level of the generated high-frequency signal having the maximum frequency;

(c) a second part of the first relational data indicating the RFAGC value relative to the inputted signal level of the generated high-frequency signal having the minimum frequency; and

(d) a second part of the second relational data indicating the IFAGC value relative to the inputted signal level of the generated high-frequency signal having the minimum frequency,

wherein said determining ~~detecting~~ means determines ~~detects~~ a first inputted signal level of the received high-frequency signal using the measured first part of the first relational data based on the measured RFAGC value, determines ~~detects~~ a second inputted signal level of the received high-frequency signal using the measured first part of the second relational data based on the measured IFAGC value, and determines ~~detects~~ an average value of the determined ~~detected~~ first and second inputted signal levels as the inputted signal level of the received high-frequency signal having the maximum frequency,

wherein said determining ~~detecting~~ means determines ~~detects~~ a third inputted signal level of the received high-frequency signal using the measured second part of the first relational data based on the measured RFAGC value, determines ~~detects~~ a fourth inputted signal level of the received high-frequency signal using the measured second part of the second relational data based on the measured IFAGC value, and determines ~~detects~~ an average value of the determined ~~detected~~ third inputted signal level and the determined ~~detected~~ fourth inputted signal level as the inputted signal level of the received high-frequency signal having the minimum frequency, and

wherein said determining ~~detecting~~ means calculates the inputted signal level of the received high-frequency signal to be measured using a linear approximation method for linearly approximating the inputted signal level relative to a reception frequency of the received high-frequency signal to be measured based on the determined ~~detected~~ inputted signal level of the received high-frequency signal having the maximum frequency and on the determined ~~detected~~ inputted signal level of the received high-frequency signal having the minimum frequency.

28. (Currently Amended) The high-frequency signal receiver apparatus as claimed in claim 23,

wherein the received high-frequency signal has a plurality of frequencies,

wherein a frequency range including the plurality of frequencies is divided into a plurality of frequency ranges, and

wherein said determining ~~detecting~~ means previously measures the first and second relational data in each of the divided frequency ranges, and determines ~~detects~~ the inputted signal level of the received high-frequency signal using the measured first and second relational data corresponding to the frequency range to which the frequency of the received high-frequency signal to be measured belongs.

29. (Currently Amended) The high-frequency signal receiver apparatus as claimed in claim 23,

wherein said determining ~~detecting~~ means previously measures third relational data, that

is a determined ~~detected~~ error in the IFAGC value of the second relational data indicating the IFAGC value relative to the inputted signal level of the received high-frequency signal, the determined ~~detected~~ error being caused, between a case with an interference signal of a further received high-frequency signal in the vicinity of the frequency of the received high-frequency signal to be measured, and a case with no interference signal thereof, and

wherein said determining ~~detecting~~ means determines ~~detects~~ the determined ~~detected~~ error using the third relational data based on the IFAGC value measured for the received high-frequency signal to be measured, and corrects the determined ~~detected~~ inputted signal level using the determined ~~detected~~ error.

30. (Currently Amended) The high-frequency signal receiver apparatus as claimed in claim 23,

wherein said determining ~~detecting~~ means previously measures the following parts:

(a) a first part of third relational data, that is a first determined ~~detected~~ error in the IFAGC value of the second relational data indicating the[[,]] IFAGC value relative to the inputted signal level of the received high-frequency signal, the first determined ~~detected~~ error being caused, between a first case with interference signals of further received high-frequency signals located on both sides of the frequency of the received high-frequency signal to be measured, and a case with no interference signal thereof; and

(b) a second part of the third relational data, that is a second determined ~~detected~~ error in the IFAGC value of the second relational data indicating the IFAGC value relative to the inputted

signal level of the received high-frequency signal, the second determined ~~detected~~ error being caused, between a second case with an interference signal of further received high-frequency signal located on one side of the frequency of the received high-frequency signal to be measured, and a case with no interference signal thereof,

wherein said determining ~~detecting~~ means determines ~~detects~~ one of the first and second determined ~~detected~~ errors based on the IFAGC value measured for the received high-frequency signal to be measured using one of the first and second parts of the third relational data which respectively correspond to states in which the received high-frequency signal to be measured is in the first and second cases, and corrects the determined ~~detected~~ inputted signal level using the determined ~~detected~~ error.

31. (Currently Amended) The high-frequency signal receiver apparatus as claimed in claim 23,

wherein said determining ~~detecting~~ means represents the first relational data and the second relational data by predetermined approximate functions, respectively, and determines ~~detects~~ the inputted signal level of the received high-frequency signal using the approximate function of the first relational data and the approximate function of the second relational data.

32. (Currently Amended) The high-frequency signal receiver apparatus as claimed in claim 23, further comprising display means for displaying the inputted signal level determined ~~detected~~ by said determining ~~detecting~~ means.